



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,717	01/02/2001	Cecile Bebot	05725.0826-00	1012
22852	7590	07/21/2004	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 1300 I STREET, NW WASHINGTON, DC 20005			ELHILO, EISA B	
		ART UNIT	PAPER NUMBER	1751

DATE MAILED: 07/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	cj
	09/750,717	BEBOT ET AL.	
	Examiner	Art Unit	
	Eisa B Elhilo	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 28 April 2004.  
 2a) This action is FINAL.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-91 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-91 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

Claims 1-91 are pending in this application.

### **DETAILED ACTION**

1 A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/28/2004 has been entered.

#### ***Claim Rejections - 35 USC § 103***

2 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 9-20, 26, 29-39 and 43-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grollier et al. (US 4,842,849).

Grollier et al. (US' 849) teaches a hair dyeing composition as claimed in claims 1-3 and 44-45 (see col. 44-46), wherein the composition comprises cyclic polymers of a formula (III) which is similar to the claimed formula (I), when in the reference's formula (III), p and t are equal 0 to 1, and p + t = 1, R" presents hydrogen or methyl group, R and R' are alkyl groups having 1 to 22 carbon atoms, hydroxylalkyl groups having 1 to 5 carbon atoms or together with the nitrogen atom to which they are attached, form a heterocyclic group, and y- is an anion (see col. 5, formula (III)) and poly- (quaternary ammonium) compound of the formula (IV) which is similar to the claimed formula (II) when in the reference's formula (IV), R1, R2, R3, and R4 are

represent lower hydroxyaliphatic radicals, X- is an anion derived from a mineral organic acid and A and B are polymethylene groups containing from 2 to 20 carbon atoms as claimed in claims 1, 38 and 68-73 (see col. 5, formula (III) and formula (IV)), wherein R and R' are methyl groups, R" is a hydrogen atom and Y- is chloride radical as claimed in claim 4 (see col. 5, lines 34-41), wherein R1, R2, R3 and R4 are chosen from methyl groups, A is a polymethylene groups of (CH<sub>2</sub>)<sub>3</sub> and B is polymethylene group of (CH<sub>2</sub>)<sub>6</sub> and X- is chloride as claimed in claims 5 and 6 (see col. 23, the formula), wherein the cationic polymer of quaternary ammonium compound is presents in the amount of 2g (2%), which falls within the claimed percentage amount as claimed in claims 13-14 (see col. 21, Example 19), oxidation bases of N,N-Bis-(2-hydroxyethyl)-para-phenylenediamine which represents the claimed formula (VI), when in the claimed formula (VI), R1 and R2 are polyhydroxy(C<sub>2</sub>-C<sub>4</sub> alkyl) groups, R3 and R4 are hydrogen atoms with its acid addition salt of sulfates as claimed in claims 19-20 and 32 (see col. 21, Example 19) and p-aminophenol that represents the claimed formula (VIII), in which R13 and R14 are hydrogen atoms as claimed in claims 17-19 and 26 (see col. 21 Example 19), wherein the oxidation base is presents in the amount of 0.15 g (0.15%) which is within the claimed range as claimed in claim 29 (see col. 21, Example 19), wherein the composition also comprises a coupler of meta-aminophenol in the amount of 0.10 g (0.10%) which is within the claimed amount as claimed in claims 30-31 (see col. 21, Example 19), direct dyes as claimed in claim 33 (see col. 13, line 47), reducing agent of sodium bisulfite in the amount of 1 mL (1%), wherein the amount is falls within the claimed percentage amount as claimed in claims 34-35 (see col. 21, Example 19), fatty alcohol of Oley and cetyl alcohols in the amount of 3g (3%) which within the claimed range as claimed in claims 36-37 and 67 (see col. 13, lines 25-26 and col. 21, Example

19), wherein the oxidizing agent is a hydrogen peroxide as claimed in claim 39 (see col. 21, lines 28-29), wherein the composition has a pH in the range of 2 to 11 which is within the claimed range as claimed in claim 43 (see col. 12, lines 19-20), wherein the composition further comprises thickening polymer comprising at least one fatty chain such as polyethylene glycol stearate and cellulose derivatives wherein the thickener is present in the amount of 0.05 to 15% which is overlapped with the claimed amount as claimed in claims 46-49 and 53-54 (see col. 13, lines 30-38), surface active agents (surfactants) such as anionic, cationic and nonionic in the amount of 3 to 20% which is within the claimed range as claimed in claims 50-52 (see col. 13, lines 9-11). Grollier et al. (US' 849), also teaches a method similar to the claimed methods when in the reference's method, the dyeing composition as described above is mixed with the hydrogen peroxide and the mixture is applied to the hair for a period of time after which, the hair is rinsed as claimed in claims 55-63 and 74-79 (see col. 21, lines 28-34). With respect to claims 64-66 and 80-91, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a kit for dyeing hair because Grollier et al. (US' 849) clearly teaches that the dyeing composition as described above is mixed with the oxidizing agent as described above at the time of use which implies that the dyeing composition that comprises the cationic polymers is kept in a separate container while the oxidizing agent is kept in another container and, Thus, a person of the ordinary skill in the art would be motivated to use the kit or compartment devices for dyeing hair as claimed and would expect such a device or kit would be similar to those claimed, absent unexpected results.

Although, Grollier et al. (US' 849), generally teaches a hair dyeing composition comprising oxidation bases, a number of cationic polymers and oxidizing agents, the reference,

does not teach or disclose the combination of cyclohomopolymer and at least one polyquaternary ammonium polymer with sufficient specificity to constitute anticipation. Further, the reference does not teach the amounts of the cyclohomopolymers and the ratio between the polymers as claimed.

However, it would have been obvious to one having ordinary skill in the art, at the time the invention was made to formulate a hair dyeing composition as taught by Grollier et al. (US' 849), which contains oxidation bases, cationic polymers and oxidizing agents and also to optimize the amounts and the ratio of these polymers because such a dyeing composition falls within the scope of those taught by Grollier et al, and wherein the cationic polymers are present in the amounts of 0.01 to 10% by weight as taught by Grollier et al. (see col. 12, lines 13-18), Therefore, one of the ordinary skill in the art would have had a reasonable expectation of success to use these cationic polymers in the dyeing composition and to optimize the amounts and the ratio of these polymers in order to get the maximum effective amounts because such a dye composition that comprises oxidation bases and cationic polymers is expressly suggested by the Grollier et al disclosure and therefore, is an obvious formulation.

3       Claims 7-8, 21-25, 27-28 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grollier et al. (US 4,842,849) in view of De La Mettire et al. (WO 99/17727). The US. Patent No. 6,251,145 B1, is used in this rejection as an English translation of the PCT WO 99/17727.

Although, the disclosure of Grollier et al. (US' 849) as described above, teaches a hair dyeing composition comprising cationic polymers, oxidation bases and oxidizing agent of hydrogen peroxide, Grollier et al (US' 849), does not teach the cationic polymers with the

limitations as claimed in claims 7 and 8. Also the reference does not teach or disclose the oxidation bases as claimed in claims 21-25 and 27-28. Further, the reference does not teach enzymes as oxidizing agents as claimed.

De La Mettire et al. (US' 145 B1), teaches in another analogous art of hair dyeing formulation, a composition comprising cationic polymers of a formula (II), which is similar to the formula (II) of claim 7, when in the claimed formula (II), R1 and R2 are methyl groups, R3 and R4 are ethyl groups, n = p = 3 and X- is bromide radical (see col. 5, formula (II)), wherein the composition also comprises cationic polymer of a formula (III), which is similar to the claimed formula (V), when in the reference's formula (III), D is zero (direct bond) and X- is a chloride radical as claimed in claim 8 (see col. 5, formula (III)), para-phenylenediamines of a formula (IV), which is similar to the claimed formula (VI), when in the reference's formula (IV), R3 is a chloride atom and wherein R1 and R2 are represent at least one group chosen from nitrogen-containing groups such as ammonium radicals as claimed in claims 21 and 24 (see col. 7, formula (IV)), double base of a formula (V), which is similar to the claimed formula (VII), when in the reference's formula (V), Y is a linker arm represents a liner or branched alkylene chain containing from 1 to 14 carbon atoms, which may be interrupted by one or more nitrogenous groups such as ammonium radicals and/or hetero atoms such as oxygen, sulfur and nitrogen as claimed in claims 22-23 and 25 (see col. 8, formula (V) and lines 27-46), para-aminophenol of a formula (VI), which is similar to the claimed formula(VIII), when in the reference's formula (VI), R13 or R14 are fluorine radicals as indicated from the compound of 4-amino-2-fluorophenol and 4-amino-3-fluorophenol that represent the reference's formula (VI) which meets the limitations of the claimed formula (VIII) as claimed in claim 27 (see col. 9,

formula (VI) and lines 30-35), oxidation bases of heterocyclic compounds such as pyrazolopyrimidine derivatives as claimed in claim 28 (see col. 10, line 21) and enzymatic oxidizing agent of 2-electron oxidoreductase as claimed in claim 40 (see col. 3, lines 39-40).

Therefore, in view of the teaching of the secondary reference one having ordinary skill in the art at the time the invention was made would be motivated to modify the primary reference of Grollier et al. (US' 849) by incorporating the dyeing ingredients of cationic polymers and oxidation bases as taught by De La Mettire et al. (US' 145 B1) to make such a dyeing composition with a reasonable expectation of success. Such modification would be obvious because the reference teaches compounds structurally similar to those claimed. Therefore, one having ordinary skill in the art would have obtained the recited claimed compounds within the general disclosure of the reference with the reasonable expectation of achieving successful composition for dyeing hair. Further, the similarities in chemical structure between the prior art and the claimed compounds and which have similar utilities establishes a *prima facie* case of obviousness. (*In re Payne*, 203VSPQ 245). Furthermore, De La Mettire et al. (US' 145 B1), clearly teaches that the use of enzymes in the hair dyeing compositions that comprise oxidation bases and couplers with at least one substantive polymers lead to more homogenous, more intense and more chromatic colorations without giving rise to any significant degradation and these coloration being relatively unselective factors to which the hair may be subjected (see col. 3, lines 1-10), and, thus, a person of the ordinary skill in the art would have been motivated to incorporate the enzymes in the hair dyeing composition with a reasonable expectation of success for improving the coloration and also protecting the hair as well, and, would expect such a composition to have similar properties to those claimed, absent, unexpected results.

### **Response to Applicant's Arguments**

4      Applicant's arguments with respect to claims 1-91 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eisa Elhilo  
Patent Examiner  
Art Unit 1751

July 17, 2004